

REMARKS

Double Patenting Rejection

Claims 1 and 7 were provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 3 and 15 of copending U.S. Patent Application Serial No. 10/557,405 (hereinafter "the '405 application"). Applicant respectfully traverses for at least the following reasons.

Claim 3 of the '405 application has no teaching whatsoever of any extraction of a message conveyed in a stream through a point-to-point connection as is recited in present claim 1, or of multiple and separate point-to-point connections. Also, the Office Action admits that there is no indication that any of the process of the '405 application is performed at a load balancing element as is recited in present claim 1. The Office Action asserts that to "add this feature to the invention" could be done "for the purpose of design choice." Adding an element is not a matter of design choice. The performance at a load balancing element and the execution device are not design choice matters.

Claim 15 of the '405 application also has no teaching whatsoever of any extraction of a message conveyed in a stream through a point-to-point connection as is recited in present claim 7, or of multiple and separate point-to-point connections. Also, the Office Action admits that there is no indication that any of the process of the '405 application is performed at a load balancing element as is recited in present claim 7. The Office Action asserts that to "add this feature to the invention" could be done "for the purpose of design choice." Adding an element is not a matter of design choice. The performance at a load balancing element and the execution device are not design choice matters.

Further, noting that the appropriateness of a provisional non-statutory double patenting rejection will depend upon the ultimate language of the claims, Applicant contends that it is premature to address a provisional rejection under the judicially created doctrine of obviousness-type double patenting until the claims are indicated as being allowable but for the double patenting rejection.

Claim Rejections Under 35 U.S.C. § 103

Claims 1-4 and 7-10 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Cuomo, et al. (U.S. Patent No. 7,366,755) in view of Au, et al. (U.S. Pub No. 2002/0174034). Applicant traverses.

Claim 1 recites “extracting [a] message from the stream; detecting in the extracted message the presence of a destination identifier identifying one of the available processing systems; and where the presence of the destination identifier is detected, forwarding the message to the processing system identified thereby via the appropriate connection.” In contrast, Cuomo teaches determining whether an incoming request includes a session ID (col. 7, ll. 4-12, especially step 604), and if a session ID is in the request, performing a hash function to determine a server to which the message is to be routed. The message itself contains no “destination identifier identifying one of the available processing systems” as is recited in claim 1. Instead, Cuomo performs a hash function to make its own determination of the processing system to which the message is to be forwarded if a session ID is present in the message. There is no teaching in Cuomo of a destination identifier in any message, and while messages are forwarded, they are forwarded to a server determined by the forwarding server, not a destination identifier present in the message.

Claim 1 also recites, for those messages in which no destination identifier is present “inserting into the message an identifier identifying the determined destination processing system; and forwarding the message to the processing system via the appropriate connection.” The Office Action asserts that col. 7, ll. 4-12 of Cuomo teach this limitation. However, a reading of those lines indicates that no such teaching is present in Cuomo. Lines 4-12 teach explicitly that if the “[i]f the request does not include a session ID, the web server routes the request to an application server with load balancing.” The web server of Cuomo simply forwards the message. There is no teaching of an insertion into the message any identifier identifying the determined destination processing system as is recited in claim 1. The message is simply forwarded. Nothing is inserted into the message.

The Office Action admits that Cuomo does not teach “detecting in the extracted message a message identifier for identifying related messages; searching a database of message identifiers for which no destination identifiers were detected, the database having information indicating to which one of the available processing systems each such message having no destination

identifier was forwarded.” The Office action further asserts that Au teaches these limitations, and for support states:

([0071] discloses The process begins by receiving a customer request (step 1000). The request is routed to the primary or secondary WCS server using a load distribution mechanism (step 1002) with the process terminating thereafter. This load distribution mechanism may take many forms as described above. In a preferred embodiment, a new user request, indicated by a source IP address and destination port different from one recorded by the load balancer, is routed to the least utilized primary or secondary server; and the load balancer records in a table the routing of the request from that source IP address and destination port (typically port 80) to the selected server. Subsequently, if another request is received from the same source IP address to the same destination port within a ‘stickiness’ interval (e.g. 1 hour stickiness period), the load balancer detects this situation using the entry in the table and routes the client request to the same server that was previously selected for this source IP address and destination port).” (Office Action, pages 10-11, emphasis in original).

Applicant respectfully submits that this is a mischaracterization of the Au reference. Au purports to route messages having the same source IP address and destination port to the same server. Au, paragraph 0071 (“Subsequently, if another request is received from the same source IP address to the same destination port within a ‘stickiness’ interval (e.g. 1 hour stickiness period), the load balancer detects this situation using the entry in the table and routes the client request to the same server that was previously selected for this source IP address and destination port.”). A reading of Au shows that the source IP address and destination port cannot be used to identify related messages. Applicant notes that client IP addresses may not be unique and a given client may be associated with different IP addresses. Similarly, Applicant contends that wholly unrelated messages may originate from a single IP address. As such, the source IP address and destination port of Au cannot correspond to a message identifier for identifying related messages as recited in claims 1 and 7.

In addition, Au cannot supply the element of “searching a database of message identifiers for which no destination identifiers were detected, the database having information indicating to which one of the available processing systems each such message having no destination identifier was forwarded” that is admittedly missing in Cuomo. Instead, Au searches its database for a source IP address and destination port for each incoming message. *See, e.g.*, Au, paragraph 0071 (“In a preferred embodiment, a new user request, indicated by a source IP address and

destination port different from one recorded by the load balancer, is routed to the least utilized primary or secondary server; and the load balancer records in a table the routing of the request from that source IP address and destination port (typically port 80) to the selected server. Subsequently, if another request is received from the same source IP address to the same destination port within a 'stickiness' interval (e.g. 1 hour stickiness period), the load balancer detects this situation using the entry in the table and routes the client request to the same server that was previously selected for this source IP address and destination port.”). Because this element admitted to be missing in Cuomo is only performed if a destination identifier is not detected in a message, the process of Au cannot supply the element to cure the deficiencies of Cuomo, as that element is recited in claims 1 and 7, where Au searches its database for each message.

Furthermore, because Au purports to either route a message to a least used server if it is a new request, or route the message to the server corresponding to the source IP address and destination port if it is not a new request (Au, paragraph 0071), Applicant respectfully submits that any modification of Cuomo by Au would necessarily result in Cuomo being modified such that it no longer would look for its destination identifier as the process of Au is used on all messages, rather than just those message that do not have a destination identifier. This would expressly teach away from the elements of Appellant's claims 1 and 7. In addition, Appellant contends that such a modification of the primary reference of Cuomo would be impermissible under MPEP, 2143.01, section V (“If proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification”).

For at least the above-mentioned reasons, no combination of Cuomo and Au teaches or reasonably suggests the elements of claim 1. Applicant respectfully submits that claim 1 is allowable. Claims 2-4 depend from and further define patentably distinct claim 1, and are also believed allowable.

Claim 7 recites similar elements to that of claim 1, specifically “a message processor for extracting the message from the stream; a message analyzer for detecting in the received message the presence of a destination identifier identifying one of the available processing systems and the presence of a message identifier for identifying related messages.” In contrast, Cuomo teaches determining whether an incoming request includes a session ID (col. 7, ll. 4-12,

especially step 604), and if a session ID is in the request, performing a hash function to determine a server to which the message is to be routed. The message itself contains no “destination identifier identifying one of the available processing systems” as is recited in claim 7. Instead, Cuomo performs a hash function to make its own determination of the processing system to which the message is to be forwarded if a session ID is present in the message. There is no teaching in Cuomo of a destination identifier in any message, and while messages are forwarded, they are forwarded to a server determined by the forwarding server, not a destination identifier present in the message.

Further, the application of Au to claim 7 is similar to that of claim 1, and the arguments set forth in support of the allowance of claim 1 apply equally to claim 7, which contains similar language to that of claim 1, specifically, “a database for storing details of message identifiers for which no destination identifier was detected along with information indicating to which of the available processing systems each such message having no destination identifier was forwarded; and a message forwarder for forwarding the message, via the appropriate connection, to the processing system identified by the destination identifier if the presence of a destination identifier is detected, and to a processing system to which a related message was forwarded if the presence of a destination identifier is not detected and the message identifier is contained in the database” which has been shown above not to be present in Au.

As no combination of Cuomo and Au teaches or reasonably suggests each and every element of claim 7, Applicant respectfully submits that claim 7 is allowable. Claims 8-10 depend from and further define patentably distinct claim 7, and are also believed allowable.

Claims 5, 11 and 13 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Cuomo, et al. in view of Au, et al. and further in view of Olson, et al. (U.S. Pub No. 2004/0205192). As claims 5, 11, and 13 each depend from and further define one of patentably distinct claims 1 or 7, and as the addition of Olson adds nothing to the elements of claims 1 and 7 shown to be missing in the combination of Cuomo and Au, no combination of Cuomo, Au, and Olson teaches or reasonably suggests each and every element of claims 5, 11, or 13, and they are allowable.

Claims 6 and 12 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Cuomo, et al. in view of Au, et al. and further in view of Gilleland (U.S. Pub No. 2002/0073203). As claims 6 and 12 each depend from and further define one of patentably

distinct claims 1 or 7, and as the addition of Gilleland adds nothing to the elements of claims 1 and 7 shown to be missing in the combination of Cuomo and Au, no combination of Cuomo, Au, and Gilleland teaches or reasonably suggests each and every element of claims 6 and 12, and they are allowable.

Claim 14 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Cuomo, et al. in view of Au, et al. and further in view of Olson, et al. As claim 14 depends from and further defines patentably distinct claim 1, and as the addition of Olson adds nothing to the elements of claim 1 shown to be missing in the combination of Cuomo and Au, no combination of Cuomo, Au, and Olson teaches or reasonably suggests each and every element of claim 14, and it allowable.

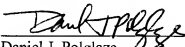
CONCLUSION

In view of the above remarks, Applicant believes that all pending claims are in condition for allowance and respectfully requests a Notice of Allowance be issued in this case. Please charge any further fees deemed necessary or credit any overpayment to Deposit Account No. 08-2025.

If the Examiner has any questions or concerns regarding this application, please contact the undersigned at (612) 312-2203.

Respectfully submitted,

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